

Abstract of the Disclosure

Computer-based, anti-clipping, pre-printing, color-image correction via virtual color-parameter controllers that are provided within the graphic user interface of a print drier. Parameters accommodated include Red, Green and Blue offset, Lightness offset, 5 Gamma and Chroma. Chroma modifications are handled preliminarily by a special mathematical matrix. In one embodiment of the invention, matrix-processed Chroma values are directly inserted into an algorithm, and are then co-processed with other parameter modifications within an anti-clipping, hyperbolic-tangent-function (asymptotic-like) algorithm which implements an asymptotic-like approach toward 10 creating final pixel modification values that avoid range-limit color and/or tone-scale clipping. In another embodiment of the invention, matrix-processed Chroma values are additionally inserted in to such an algorithm as components of a pair of like cubic terms. These cubic terms function to enhance asymptotic behavior of the algorithm in certain situations. Final pixel values are drawn from three one-dimensional look-up tables, one 15 for each of the three colors. These tables which, save overall computational time, are based upon prior user approval of a low-pixel-count sub-sampled preview image of the whole, larger, original image, in which preview image the expected effects of color parameter changes are observable.